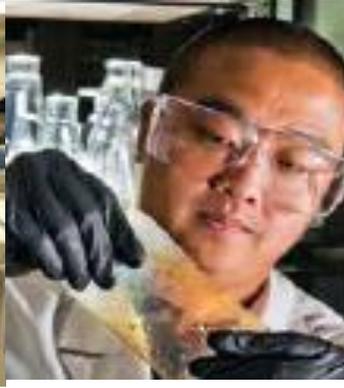


Energy Storage Demonstration Projects –
OE-ES Peer Review
Project: Alliant Energy Decorah Battery
10/26/21



PRESENTED BY

Sarah Martz, Alliant Energy

Decorah Battery Project

Alliant Energy, with EnelX (integrator) and Samsung-Sungrow (Mfr)

Location: Leased Land in City Park - Decorah, IA

What: NMC Li-Ion Battery, 2.5 MW, 2.9 MWH

Why: Increasing Hosting Capacity (Ability to Accommodate DG)

When: RFP issued: Spring 2019

Contract placed: Fall 2019

Installation complete: Summer 2021

Commissioning complete: June 2021

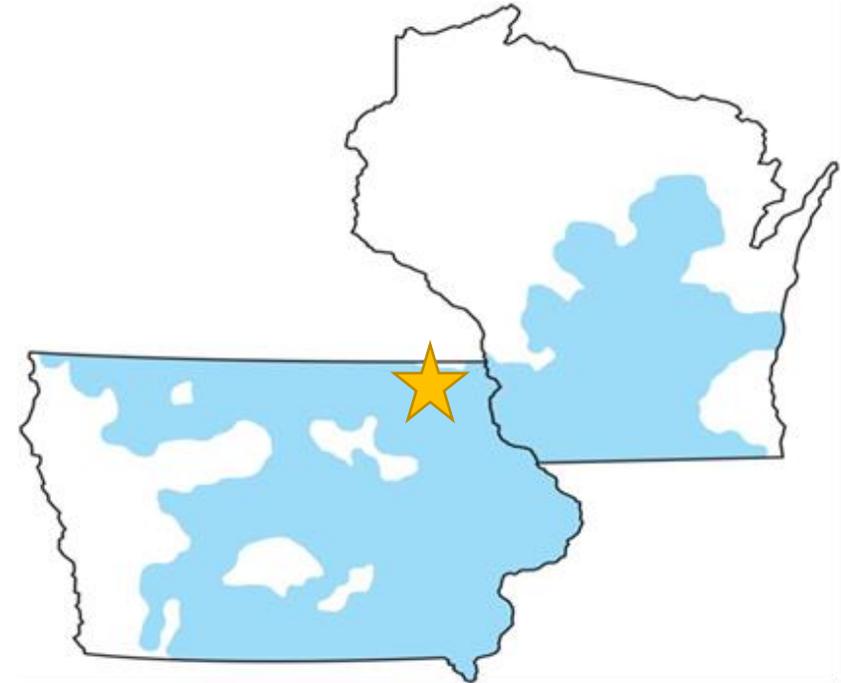
- *Currently pending several additional tests, but substantially complete*

Turnover and operation

How much:

Total Estimated cost: \$2.9 MM

DOE Cost share (equipment only): \$250,000





Data Collection, Monitoring & Analytics

- Bringing data into PI Historian for high-quality monitoring
- Internal tools are more useful than interface provided by vendor
- Sandia National Labs receiving data via PI Interface and will also analyze for additional learnings

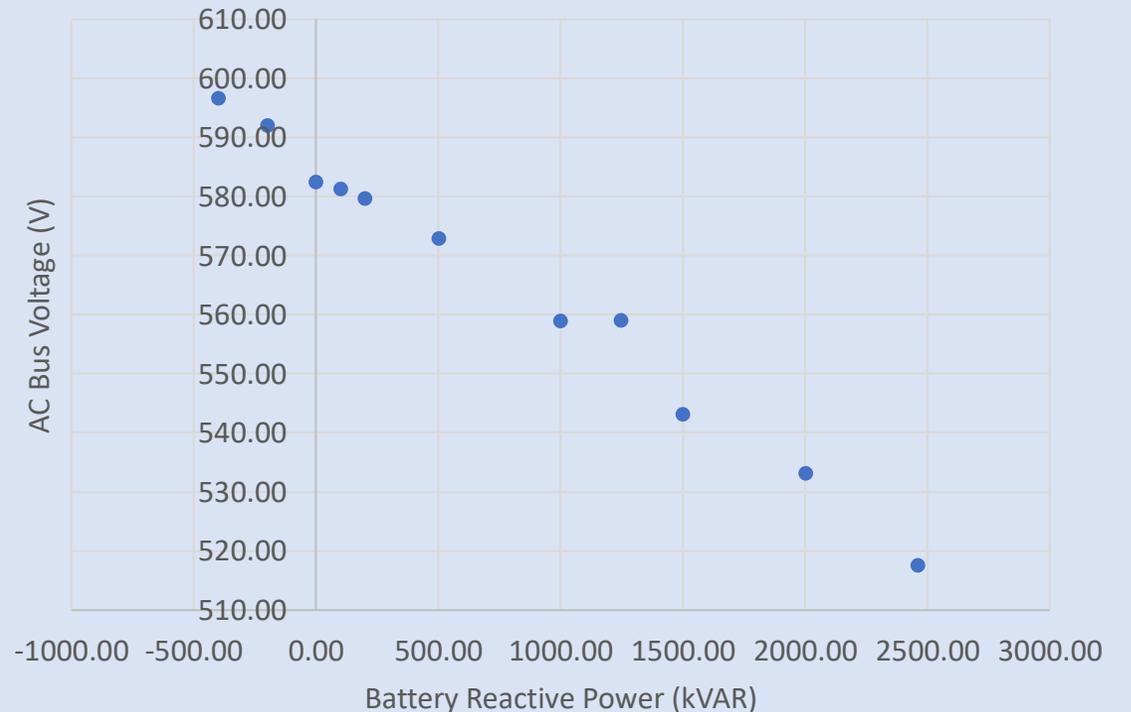
Real and Reactive Power Commissioning

Battery use case is to manage real and reactive power to better accommodate DG on circuit

Real Power



Reactive Power



Status & Hurdles

- Commissioning spanned several months due to support delays from Manufacturer
 - Support from integrator, vs. contracted support for manufacturer, vs. direct support from manufacturer
- Weeks of initial checkout, error resolution within racks, configuration of controls
- Completed hot commissioning on June 18
- Still resolving other details and testing to verify proper operational response (Real & Reactive Power)
 - Working with integrator to further customize controls
- Completed Fire Department Training w/ assistance from Sandia / PNNL
- PI Points Validation & Checkout
- Stray Voltage testing (concern for utilities with dairy farms in territory)
- Working to finalize as-built documentation, training, etc.

Thank You

Sarah Martz – Alliant Energy

Derek Wagner – Alliant Energy

Dave Galarowicz – Alliant Energy

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Stationary Energy Storage program
directed by Dr. Imre Gyuk.



INDIVIDUAL Project Overview

- WHO
- WHAT
- WHERE
- WHEN
- WHY
- HOW
- HOW MUCH
- STATUS
- LESSON LEARNED
- CAN USE MORE THAN ONE SLIDE BUT KEEP TO MINUTES ALLOCATED (15)

